

What is Claimed is:

1. A transformer comprising a bobbin around which at least a primary winding and a secondary winding are wound, and a core inserted through a center of the bobbin, and mounted on a printed board,

wherein a component holding section for holding a component is provided in an outer peripheral portion excluding a mounting side on the printed board.

2. The transformer according to claim 1, wherein the component holding section is formed on a side surface of the bobbin.

3. The transformer according to claim 1, wherein the component holding section is formed on a component fixing plate to be a separate member from the bobbin and the component fixing plate is fixed to the bobbin.

4. The transformer according to claim 1, wherein the bobbin comprises a bobbin base member for winding at least the primary winding and the secondary winding therearound, and a side end flange section to be attached to one of ends of the bobbin base member, and the component holding section is formed in the side end flange section.

5. The transformer according to any of claims 1 to 4, further comprising an insulating cover for covering a component held by the component holding section and attached to the bobbin side.

6. The transformer according to any of claims 1 to 5, wherein an end of the secondary winding is protruded from the outer peripheral portion excluding the mounting side on the printed board.

7. The transformer according to claim 6, wherein at least one of lead wires of components held by other component holding sections and connecting ends of the secondary winding is connected to a lead wire of the component held by the component holding section.

8. A transformer unit mounting the transformer according to any of claims 1 to 7 on a printed board, comprising:

a voltage doubler rectifying circuit for rectifying a high voltage having a high frequency from the secondary winding of the transformer, a high-voltage component constituting the voltage doubler rectifying circuit being held in the component holding section.

9. The transformer unit according to claim 8, wherein a

connecting end of the secondary winding is directly or indirectly connected to a lead wire of the high-voltage component via a post protruded from the bobbin.

10. The transformer unit according to claim 9, wherein a plate-shaped relay terminal is bonded to the lead wire of the high-voltage component connecting the connecting end of the secondary winding, and the connecting end of the secondary winding is connected to the relay terminal.

11. The transformer unit according to any of claims 8 to 10, wherein a mutual electrical connection of the lead wires of the high-voltage components provided on the component holding section is carried out through a plate-shaped connecting terminal serving as a radiation plate.

12. The transformer unit according to any of claims 8 to 11, wherein in a pair of diodes connected serially and a pair of capacitors connected serially in the voltage doubler rectifying circuit, a lead terminal of the diode is connected to one of leads of a heater winding incorporated in the transformer and a lead terminal of the capacitor is connected to the other lead of the heater winding.

13. The transformer unit according to any of claims 8 to 12,

wherein the voltage doubler rectifying circuit and the core are connected to a ground terminal on the printed board through a common ground connecting terminal.

14. The transformer unit according to claim 13, wherein the ground connecting terminal includes a lead connecting section to be connected to a lead wire of a high-voltage component constituting the voltage doubler rectifying circuit and a board connecting section to be connected to a ground contact, and a core connecting section implementing a conduction to a core is provided in elastic contact with an external surface of the core between the lead connecting section and the board connecting section.

15. The transformer unit according to any of claims 8 to 14, wherein a partition wall for separating the core from the high-voltage component held by the component holding section is erected in an outer peripheral portion of the bobbin provided with the component holding section.

16. The transformer unit according to claim 15, wherein the partition wall is extended to be higher than a height of protrusion of the high-voltage component from the bobbin.